

Working Paper Series

**Estimation of Voter Turnout
by Age Group at the
39th Federal General Election,
January 23, 2006**

March 2008



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Executive Summary

The Chief Electoral Officer of Canada has a mandate to make the electoral process better known to Canadians, particularly to those who might experience difficulty in exercising their right to vote. For this reason, Elections Canada is carrying out research on how people participate in elections. This study is one of the initiatives aimed at better understanding the dynamics of electoral participation, chiefly among the youngest voters.

Until 2004, the analysis of electoral participation by age group was based on estimates from survey research, a method that tends to exaggerate the turnout rate considerably. Under the Chief Electoral Officer's authority, in 2004 Elections Canada used administrative data from the electoral process to create a sample of electors who voted at an advance poll, by special ballot or at a polling station on election day. The year of birth of each elector was then obtained from the National Register of Electors to develop estimates by age group, based on the sample. Using this method, Elections Canada estimated that 37.0% of young people aged 18 to 24 voted in the 2004 general election.

The same methodology was used in 2006, so that the findings could be compared with the figures for 2004. According to the estimates, in 2006 overall turnout increased by 4.4 percentage points. Because registration rates vary across age groups, estimated voter turnout rates were based on the electoral population, using adjusted data from the 2001 Census conducted by Statistics Canada.

The increase was concentrated in the three youngest age groups, spanning ages 18 to 44. A sharp increase of 6.8 percentage points to 43.8% was noted in the 18-to-24 age group. Compared with first-time voters, who gained a mere 2.7 percentage points, youth who had been eligible to vote federally before 2006 gained a statistically significant 9.9 percentage points over 2004. Neither the 2004 nor the 2006 elections showed noticeable differences between the participation rates of first-time voters and of voters who were previously eligible to vote federally.

Although these gains among the younger groups seem encouraging, it must not be forgotten that turnout in the youngest group remains 19 percentage points below the national average.

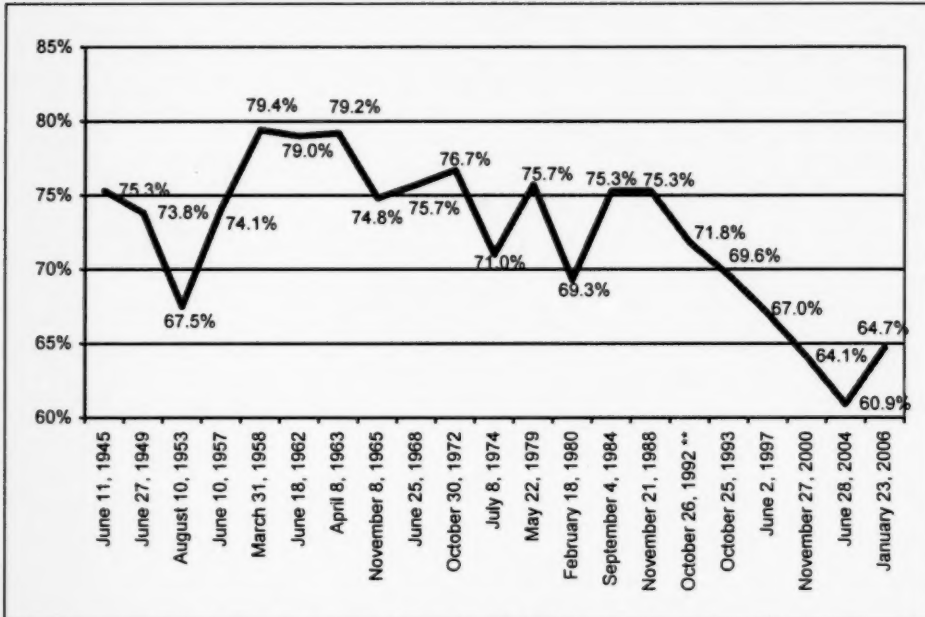
Elections Canada would like to thank the following people for reviewing an earlier draft of this report:

- André Blais, professor at the Université de Montréal
- Karla Fox, methodologist at Statistics Canada
- Lawrence LeDuc, professor at the University of Toronto
- Henry Milner, professor at the Université de Montréal
- Jon H. Pammett, professor at Carleton University

Background

In Canada, as in most developed democracies, electoral participation has declined progressively and continually over the past two decades. As shown in Figure 1, turnout rates fluctuated around an average of 75% from 1945 to 1988, but fell steadily from 1988 to 2004. In the 39th general election, the 64.7% official turnout rate marked an increase of close to 4 percentage points from 2004.

Figure 1: Turnout rate in federal elections (1945–2006)*



* Official turnout in Canada is based on the number of electors on the final lists of electors.

** Date of the referendum on the Charlottetown Accord proposing constitutional changes.

Exploring the Dynamics of Decline

In response to the unbroken downward trend since 1988, researchers have turned their attention to the decline in electoral participation in Canada. Analyses carried out by André Blais and his colleagues of the Canadian Election Study¹ found that the phenomenon was largely attributed to the disengagement of Canadians born after 1970 – the youngest voters at the time. Not only were new youth cohorts increasingly turning their backs on elections, their analyses showed, but they were also less likely than previous generations to start voting as they grew older. The direct result was said to be a deficit in “generational replacement,” a factor that normally contributes to maintain turnout rates over time.

In 2002, Elections Canada commissioned professors Jon Pammett of Carleton University and Lawrence LeDuc of the University of Toronto to conduct a survey-based study on a sample composed of an equal number of voters and non-voters.² Their analyses estimated that just over 25% of 18- to 24-year-olds voted in 2000. The conclusions reached by Pammett and LeDuc also confirmed that youth disengagement contributed to the overall decline in turnout. According to the researchers, the influence of new cohorts much less likely to vote began to be felt from 1993. Their study also showed that the “life cycle” effect – that is, turnout normally rising as people get older – was less pronounced among cohorts born in the 1980s than it was among earlier generations. Assuming that the life cycle effect continued to weaken, the authors saw the possibility that forthcoming cohorts would vote in ever fewer numbers, resulting in a continued decline in turnout.

Note that all of this research was carried out using data from elector surveys. As will be shown, this methodology is useful but involves substantial difficulties when it comes to measuring electoral participation.

Measuring Electoral Participation

Traditionally, studies on electoral participation have relied on surveys with respondents who voluntarily agree to take part. However, this methodology is known for consistently overestimating turnout by roughly 20 percentage points compared with the official rate.³ This problem has been circumvented by the use of oversampling or weighting techniques.

Two main factors lie behind the tendency to overestimate. First, it is reasonable to think that people who agree to take part in elector surveys are generally more likely to vote. This “natural selection” would translate into over-representation of voters in samples and under-representation of non-voters – hence the overestimation of the turnout rate.

The second factor is the fact that some survey respondents claim they voted when they did not. This phenomenon, which stems from a sense of “social desirability,” is a natural tendency to publicly claim behaviours that are socially valued and to conceal those that are not. Exercising the right to vote is among the socially valued behaviours.

The combination of these two factors inherent in the survey method becomes even more problematic when the aim is to study a specific age group. There is nothing to suggest that the bias attributable to natural selection or social desirability is equally strong among all age groups.

To solve these methodological difficulties, in 2004 Elections Canada developed a new approach to measuring electoral participation by age group, one not based on surveys.⁴ Under the Chief Electoral Officer's authority, Elections Canada used data compiled for the purpose of administering the electoral process to create a sample of electors who voted at an advance poll, by special ballot or at a polling station on election day. The year of birth of each elector was then obtained from the National Register of Electors to develop estimates by age group, based on the sample.

Unlike the 2004 general election, which was held in June, the 2006 general election took place on January 23, at the start of a university semester. At this time of year, many students take up residence on or around campus, leaving them with the option to vote in this electoral district or in the electoral district of their family home. It therefore seemed relevant to take this geographic concentration into account. Consequently, electoral districts with at least one large campus were included in the sample; in Quebec and Ontario, one out of every two electoral districts with a campus was selected due to the larger numbers of campuses.

To allow a more refined analysis, the 18-to-24 age group was subdivided into youth who were eligible to vote for the first time in the 2006 general election and those who had previously been eligible to vote federally.⁵

For the 2006 general election, the study was based on the votes of more than 3 million electors, including those who voted at an advance poll or by special ballot, and those who voted on election day in 1,166 polling divisions found in 50 electoral districts across the country. Because of the sampling design used for some of the data, the estimates are statistically reliable within a margin of $\pm 4.8\%$,⁶ 19 times out of 20, when extrapolated to the electoral population. Margins of error are higher for specific age groups and individual provinces or territories. The complete methodology is further detailed in Appendix 1.

Results of the 2006 General Election

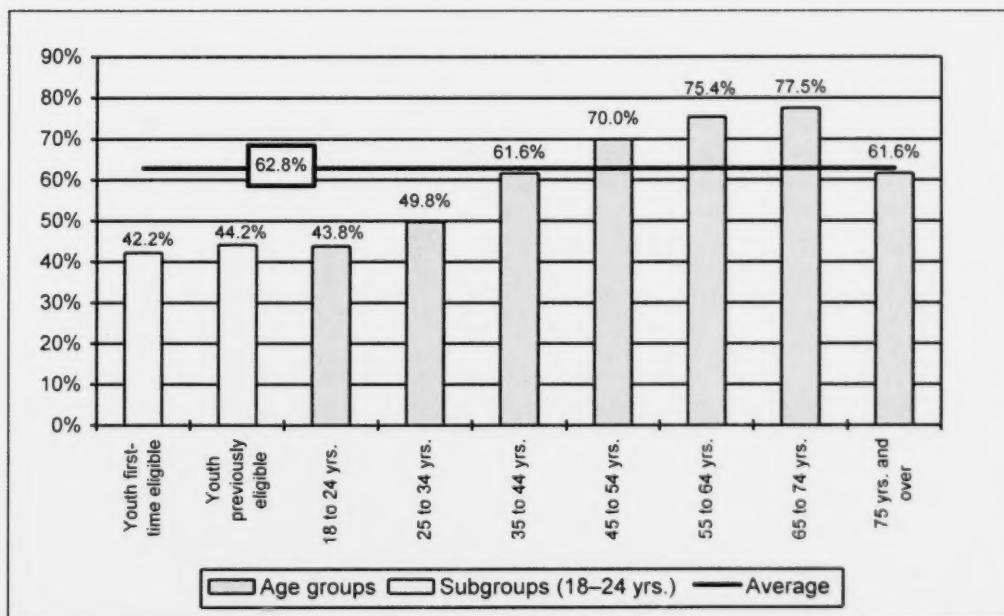
The following section presents the turnout rates by age group at the national level and by province and territory for the 2006 federal general election.

National Estimates

Figure 2 presents estimates of turnout in the January 2006 election for each age group and the two subgroups within the 18- to 24-year-olds. The data confirm the positive relationship between age and voter turnout. Turnout steadily increases in each age bracket up to 77.5% in the 65-to-74 group, and decreases to 61.6% among the 75-year-olds and over. It can be noted that the oldest and the three youngest groups each posted a turnout rate below the estimated national average of 62.8%.

The difference between this estimated rate and the official turnout rate of 64.7% is explained by the fact that estimates are calculated on the basis of the voting-age population rather than the number of electors in the National Register of Electors. This was done to bypass the bias created by the lower proportions of eligible youth who are duly registered. Details on why the electoral population was used, as well as on how it was calculated, are given in Appendix 1. Naturally, turnout based on the electoral population is smaller than that based on the number of registered electors because the Register does not contain 100% of electors.

Figure 2: Turnout in the 2006 general election by age group



Of all the age groups, the 18- to 24-years-old posted the lowest turnout, with a rate of 43.8%, some 19 percentage points below the national estimate of 62.8%. The 25-to-34 age group followed at 49.8% – 13 percentage points below the national average.

The difference between youth eligible to vote for the first time and youth who had been eligible in the previous election is no more significant in 2006 than it was in 2004.

Estimates by Province and Territory

Estimates by age group were calculated for each province and territory. The data are presented in Table 1.

The positive relationship between age and turnout already observed at the national level emerges as well without exception in every province and territory. Of all the age groups, youth aged 18 to 24 posted the lowest turnout in every province except Nova Scotia and Alberta, where turnout of this cohort was slightly but not significantly higher than the turnout of 25- to 34-year-olds.

In general, turnout among first-time voters and youth who had been eligible to vote before did not differ significantly. The most notable difference between these two groups – and the only one of statistical significance – was observed in Nunavut, where first-time voter turnout (22.1%) was 13.4 percentage points below the turnout of youth who had previously been eligible to vote (35.5%).

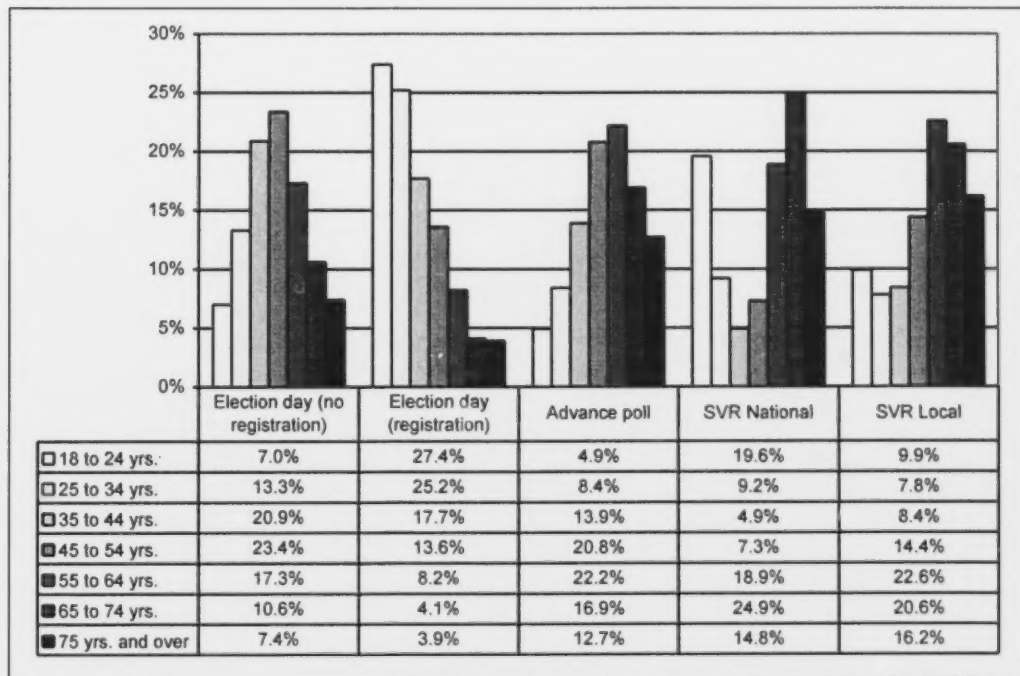
Table 1: Estimated turnout in the 2006 general election by age group (Canada, provinces and territories, %)

| | Youth 18-24 | | Age groups | | | | | | | Total |
|--------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|------|-------|
| | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | |
| Canada | 42.2 | 44.2 | 43.8 | 49.8 | 61.6 | 70.0 | 75.4 | 77.5 | 61.6 | 62.8 |
| N.L. | 24.5 | 23.3 | 23.6 | 33.2 | 55.1 | 65.9 | 72.5 | 76.9 | 56.3 | 55.4 |
| P.E.I. | 53.3 | 51.6 | 52.0 | 58.8 | 73.9 | 82.6 | 82.1 | 83.9 | 78.4 | 74.0 |
| N.S. | 48.3 | 48.1 | 48.1 | 46.3 | 65.4 | 75.6 | 77.5 | 77.4 | 57.1 | 65.2 |
| N.B. | 44.7 | 45.8 | 45.5 | 52.6 | 68.2 | 74.0 | 82.4 | 84.5 | 75.5 | 69.0 |
| Que. | 47.3 | 51.0 | 50.2 | 57.0 | 62.1 | 67.2 | 74.4 | 79.5 | 55.4 | 64.1 |
| Ont. | 43.7 | 47.9 | 47.0 | 53.7 | 64.4 | 70.4 | 76.3 | 72.7 | 56.8 | 63.7 |
| Man. | 33.6 | 33.4 | 33.4 | 44.8 | 59.0 | 69.0 | 72.7 | 76.0 | 69.4 | 60.4 |
| Sask. | 30.2 | 26.6 | 27.4 | 39.1 | 55.8 | 69.5 | 84.7 | 94.4 | 87.4 | 62.8 |
| Alta. | 40.5 | 42.7 | 42.2 | 40.1 | 59.4 | 74.7 | 73.6 | 78.2 | 70.0 | 60.5 |
| B.C. | 37.2 | 33.2 | 34.1 | 39.2 | 54.4 | 69.1 | 72.9 | 81.9 | 69.7 | 59.3 |
| Y.T. | 33.3 | 30.9 | 31.4 | 48.1 | 57.2 | 78.8 | 72.4 | 69.1 | 78.3 | 61.4 |
| N.W.T. | 29.4 | 32.4 | 31.7 | 41.0 | 54.7 | 71.7 | 66.8 | 57.2 | 48.5 | 53.1 |
| Nun. | 22.1 | 35.5 | 32.6 | 45.8 | 65.8 | 56.4 | 70.7 | 69.1 | 59.3 | 52.7 |

Voting Methods

Data on all electors were analyzed for this study, regardless of the voting method chosen. This includes all electors who voted at an advance poll or by special ballot, all who registered or modified their registration information on election day (and are therefore assumed to have voted) and a random sample of electors who voted on election day without having to register at the polls. Figure 3 presents the breakdown of these groups by age cohort.

Figure 3: Voting method by age (2006 general election)



Electors Who Voted Without Registering at the Polls on Election Day

The age of voters who were already registered on election day (and who did not change their registration information) follows a relatively normal distribution, with fewer youth and seniors and a concentration among the three middle groups.

Electors Who Registered at the Polls and Voted on Election Day

The second group of election day voters – those who registered or modified their registration information on election day – is clearly overrepresented by the younger groups and much less by the older groups. While this study cannot draw definitive conclusions about the reasons for this correlation with age, we can surmise that it has to do with a combination of factors. To start with, the youngest age groups include more electors registering for the first time, in this case doing so on election day. As well, students who

moved to a new location for the semester probably did not receive the voter information card at their new address and some may have decided to register and vote in their new location. It is important to note that the majority of all new registrations and changes of address are performed on election day, regardless of the age of the elector.

Electors Who Voted at Advance Polls

The age distribution of electors who voted at advance polls shows that this method is less used by the two younger groups of electors, while it is relatively normal among the older groups. Various explanations may be given for the phenomenon, including lack of information among the younger groups, or experienced voters' desire to avoid lineups or inclement weather on election day.⁷ Here again, the statistical data give no indication of the explanatory factors.

Electors Who Voted by Special Ballot (SVR)⁸

Figure 3 shows that voting by special ballot is generally more common among the four older age groups (45–54, 55–64, 65–74 and 75 and over), but it is also used to a certain extent by youth.

Holding the 2006 general election during the winter presented two particular challenges, among others. First, it coincided with the seasonal migration of a number of Canadians to warmer climates. Elections Canada made extra efforts to reach out to the potential 200,000 “snowbirds” temporarily outside the country and ensure that they could vote by mail-in ballot. These included newspaper advertisements, information materials distributed through high commissions, consular offices and embassies abroad, e-mail messages and Web site announcements directed at Canadians temporarily living abroad.

Second, by election day, most college and university students were back in class for the winter semester. Elections Canada took extra steps to inform students of their voting options (including SVR) through e-mail bulletins, news releases and partnerships with major student federations and other youth organizations throughout the country.

The group of “SVR Local”⁹ shows a slight concentration of youth and electors over the age of 44, but has less variation across the age spectrum than the group of “SVR National.” Clearly, concentrations of 18- to 24-year-olds and 64- to 75-year-olds voted from outside of their electoral district. While the former cohort could reflect students temporarily residing away from their electoral districts, the second corresponds to the “snowbirds” voting from abroad.

From the angle of this study, it is to be noted that youth are more likely to vote by special ballot than the mid-aged groups, no matter where they cast their ballot.

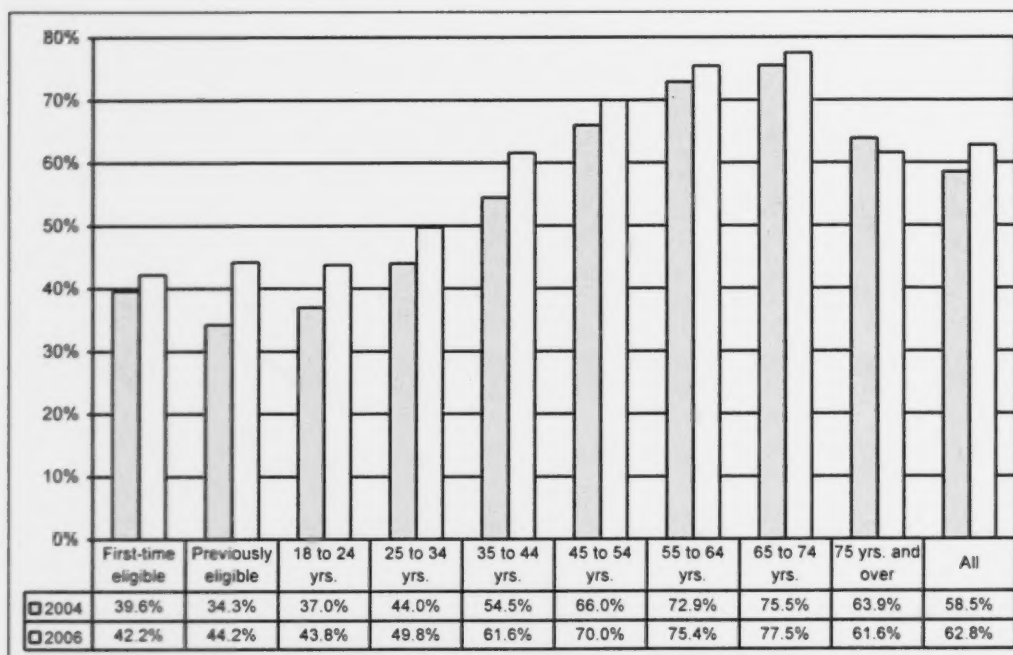
Differences Between the 2004 and 2006 General Elections

Estimates obtained for the 2006 general election are the first that are comparable with those obtained for the 2004 general election. This section compares the results of both elections and draws the main conclusions about the observations among the various age groups. Observed differences are considered significant if a 95% confidence interval around the estimated difference does not include zero.

National Estimates

Figure 4 presents the differences observed at the national level in each age group between the elections of 2004 and 2006.¹⁰ Differences account for an overall increase of 4.4 percentage points. First, turnout increased in all groups except the 75-and-over age group, whose participation decreased slightly in 2006 (by 2.3 percentage points). Note, however, that the differences are statistically significant only among voters under age 45. The difference is not significant among youth voting for the first time (2.7 percentage points), but it is among those who had previously been eligible to vote (9.9 percentage points).

Figure 4: Turnout by age group in the 2004 and 2006 general elections



Note: "First-time eligible" represents youth who were eligible to vote federally for the first time; "previously eligible" represents those who had been eligible to vote in a previous federal election.

Provinces and Territories

At first glance, the data presented in Table 2 indicate a variable but significant increase in turnout from 2004 to 2006 in all provinces and territories of Canada.¹¹

Table 2: Differences in turnout by age group between the 2004 and 2006 general elections (Canada, provinces and territories, %)

| | Youth 18-24 | | Age groups | | | | | | | Total |
|--------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | |
| Canada | 2.7 | 9.9* | 6.8* | 5.7* | 7.1* | 4.0 | 2.4 | 2.0 | -2.3 | 4.4* |
| N.L. | 1.2 | 0.6 | 0.5 | -1.4 | 9.7* | 10.4* | 7.9* | 15.1* | 1.7 | 7.2* |
| P.E.I. | 2.0 | 8.6 | 4.6 | 0.3 | 1.9 | 3.6 | -5.3 | 0.0 | 13.0 | 0.9* |
| N.S. | 10.5* | 8.2 | 9.3 | -0.1 | 8.4 | 2.6 | 7.0 | 13.2 | 2.0 | 5.8* |
| N.B. | 4.6* | 16.2* | 10.5* | 5.8 | 5.4* | 5.0* | 2.3 | 0.7 | 12.9* | 5.8* |
| Que. | -0.9 | 11.3 | 6.4 | 10.7* | 8.1 | 2.2 | 0.9 | 0.2 | -14.9 | 3.5* |
| Ont. | 1.9 | 12.6* | 8.4* | 9.1* | 7.1 | 1.7 | 3.5 | -0.2 | 0.7 | 5.0* |
| Man. | 5.3* | 4.5 | 4.9* | 7.1 | 7.9 | 7.5 | 1.7 | 5.0 | 1.9 | 4.6* |
| Sask. | 1.2 | 0.0 | -0.5 | 4.0 | 6.4 | 7.2 | 8.9 | 13.2 | 1.0 | 4.8* |
| Alta. | 5.2 | 14.0* | 10.1* | -5.1 | 5.7 | 12.1* | 5.7 | 3.2 | 10.9 | 5.5* |
| B.C. | 5.3 | 2.0 | 2.5 | -1.8 | 6.0 | 5.1 | -2.6 | 2.9 | -2.2 | 2.1* |
| Y.T. | 7.7* | 1.0 | 3.9* | 4.2 | 6.0* | 11.5* | 3.0 | -9.8 | 2.7 | 5.9* |
| N.W.T. | 0.0 | 5.3* | 3.4 | 4.2 | 7.7* | 8.9* | 15.7* | 21.2* | 20.4* | 7.3* |
| Nun. | -4.2* | 7.6* | 5.6 | 4.5* | 19.4* | 8.6* | 9.2* | -3.5 | 11.9 | 9.1* |

* Significant difference at a 95% confidence level.

Regarding the differences among 18- to 24-year-olds, increases were higher by 10.1 percentage points in Alberta and 10.5 points in New Brunswick. In Nova Scotia, Manitoba and Yukon, the increase was higher among first-time voters; in Ontario, Alberta and the Northwest Territories, it was higher among youth who were previously eligible to vote. Finally, in Nunavut turnout seems to have decreased among first-time voters but increased among youth who were previously eligible to vote.

The turnout rates used to calculate the differences provided in Table 2 are shown in Appendix 3.

Conclusion

In 2004, the study revealed that turnout was slightly higher among the first-time voters compared with the previously eligible young voters. Although not statistically significant, this pattern was observed nationally as well as in several provinces and one territory. We had hypothesized that it could signal the beginning of a reversal of the low engagement levels among youth. This was also encouraging in light of the concerted efforts made by Elections Canada and others to raise youths' awareness and make the electoral process more welcoming and accessible to them.

In 2006, the overall turnout increased by 4.4 percentage points nationwide and in all age groups except for the oldest (75 years and over, where it dropped by 2.3 percentage points). We find that the overall increase is mostly concentrated among the three youngest groups (under 45 years old). The youngest age group (18–24) voted at a 43.8% rate in 2006, compared with 37% in 2004, a noticeable increase of 6.8 percentage points. Looking further, the higher rate found among the first-time voters in 2004 was not replicated in 2006. Instead, the increase was mainly concentrated among those who had previously been eligible to vote federally (9.9 percentage points) and was much less among first-time voters (a mere 2.7 percentage points).

At first glance, these gains among the younger groups seem encouraging. However, we must not forget that their participation rate is still 19 percentage points below the national average, representing a lag of more than 35 percentage points behind the 65- to 74-year-olds. In other words, youth clearly remain on the sidelines of the electoral process, and continued efforts are still warranted to keep up the momentum of improvement.

Appendix 1: Methodology

The goal of this study was to estimate the voter turnout rates at the 39th general election, held on January 23, 2006, for specific age groups of interest. To break down voters by age, two pieces of information are needed: evidence of the act of casting a ballot and a date of birth. Date of birth information is available in the National Register of Electors and is copied onto the final list of electors produced after the election. The voting method (on polling day, by special ballot, or at advance polls), as set out in the *Canada Elections Act*, was also accounted for in the sampling strategy.

The study sample consisted of three different components: electors who voted at advance polls or by special ballot, electors who registered to vote on polling day, and electors already registered who simply showed up and voted on polling day. The first two components required no sampling procedures, since the relevant information was available for all electors using those voting mechanisms. The third component consisted of a sample.

Administrative controls ensure that Elections Canada can keep records of electors who vote at advance polls or by special ballot. Therefore, those who voted by these means could be identified on the final list of electors, and their dates of birth could be obtained from the National Register of Electors. This first component comprised 1,972,057 electors.

Electors who registered on polling day could easily be identified from the operational system, and all were assumed to have voted. Dates of birth for this group were obtained from the registration certificates. This second component included 904,802 voters.

When electors show up at their polling station to vote, their name is physically struck off the list of electors for that polling division as a control measure. These lists, which are returned to Elections Canada with the ballots, are the only evidence that electors who were not required to register on polling day actually voted that day. A sample of 193,446 such voters was selected to produce national turnout estimates. This third component was, therefore, the only one that was subject to sampling error. In this case, dates of birth were obtained from the National Register of Electors. Of course, all electors included in the first two components were identified and removed from the sampled third component, to avoid double-counting when all components were combined.

The total number of votes cast is known at the electoral district level from ballot counts. If this were not taken into account, the totals of the estimates obtained across all ages would naturally differ from these known totals, due to sampling variability. To obtain estimates that agree exactly with known totals, the known totals were weighted. The procedure is known as ratio estimation. An example that illustrates these calculations is provided at the end of the description of the sample design.

Electoral Population

The official results published by the Chief Electoral Officer of Canada are calculated in comparison to the number of electors in the National Register of Electors. However, using the Register as the reference population could have biased the results of this study for at least three reasons.

The first reason is that youth are proportionally less likely to be registered as electors. This is a result of a combination of factors. Some young people are less well informed about electoral matters; some may lack interest or initiative; and young people in general have higher mobility rates.

Secondly, the coverage of the electoral list (that is, the percentage of electors listed) changes over time, depending on many factors relating to list maintenance activities, such as the availability of data for updating the list. If turnout is calculated relative to the number of electors on the list, then measures of change over time are hopelessly confounded by these other factors. This problem is exacerbated when we break down turnout by age, since the changes in coverage may be quite different for different age groups. For example, an apparent decrease in youth turnout may be partly due to our efforts to increase coverage of youth on the list. Use of an independent estimate of the electoral population as the denominator eliminates this problem.

Thirdly, one important way that electors get added to the list of electors is by voting. Therefore, non-voters are slightly under-represented on the list of electors, which makes the official turnout artificially high. This problem is exacerbated when we break down turnout by age, since the youngest age group is most likely to be under-represented because this group votes less. Again, use of an independent estimate of the electoral population as the denominator eliminates this problem.

For these reasons, the estimated electoral population was based on Statistics Canada's 2001 Census, with adjustments made to remove non-citizens and citizens under 18 years of age, since they were not eligible to vote. Additional adjustments were made to take into account population growth during the time elapsed between census day and polling day, using demographic information provided by Statistics Canada and Citizenship and Immigration Canada.

The estimates of adult citizens were obtained by adding the number of new 18-year-olds and new citizens, subtracting the number of deceased persons and emigrants, and by adding or subtracting the net number of migrants to the number of citizens extracted from the most recent census. The census counts were previously adjusted for net census undercount, incompletely enumerated Indian reserves and for persons living in collective households (census count of citizens excludes persons living in collective households).

Estimates were first produced for each electoral district, and then summed to obtain estimates for Canada, the provinces and territories. The component approach used could be expressed as follows:

$$C_{t+x} = C_t + A_{t,t+x} + N_{t,t+x} - D_{t,t+x} - E_{t,t+x} \pm M_{t,t+x}$$

where for any given electoral district:

| | |
|-------------|--|
| C_t | adjusted number of citizens |
| $A_{t,t+x}$ | new adults |
| $N_{t,t+x}$ | new citizens |
| $D_{t,t+x}$ | deaths |
| $E_{t,t+x}$ | emigrants |
| $M_{t,t+x}$ | net migrants |
| t | census day |
| $t,t+x$ | interval between census day and election day |

The components of growth involving new citizens were provided by Citizenship and Immigration Canada.

Age Groups

The electoral population was estimated by age group for provinces and territories, as of the date of the general election on January 23, 2006. This estimate was derived from the estimated electoral population aged 18 and over by distributing these adult elector estimates by age group.

Annual demographic estimates by single year of age produced by Statistics Canada were used to distribute the estimates of adults by age groups. The approach consisted of using the latest estimates available and moving each cohort to the election date. As these estimates included non-citizens, these were removed by applying citizenship rates from the 2001 Census. To account for differential net census undercount between citizens and non-citizens, each cohort was adjusted using the undercount of citizens. Finally, the estimates by age groups were adjusted to ensure consistency with provincial and territorial estimates of 18-year-olds and over.

Age groups were determined on the basis of an elector's age on polling day (January 23, 2006). Among the youth group – those 18 to 24 years of age inclusively (25 years old minus one day) – we isolated those who had turned 18 since the previous general election (after June 28, 2004). This group represented young people who were eligible to vote for the first time federally in the 2006 general election. The second group represented those who had been eligible to vote in a federal general election or by-election before January 2006.¹²

The following table illustrates the age groups based on dates of birth.

Table 3: Details on age groups

| Age groups | Born on or after | And before | Electors in population (estimated) | Percentage |
|---------------------------|------------------|------------------|---------------------------------------|------------|
| Youth first-time eligible | June 29, 1986 | January 24, 1988 | 618,655 | 2.6 |
| Youth previously eligible | January 24, 1981 | June 29, 1986 | 2,153,711 | 9.1 |
| 25-34 | January 24, 1971 | January 24, 1981 | 3,985,507 | 16.8 |
| 35-44 | January 24, 1961 | January 24, 1971 | 4,737,286 | 20.0 |
| 45-54 | January 24, 1951 | January 24, 1961 | 4,736,381 | 20.0 |
| 55-64 | January 24, 1941 | January 24, 1951 | 3,432,101 | 14.5 |
| 65-74 | January 24, 1931 | January 24, 1941 | 2,137,926 | 9.0 |
| 75+ | | January 24, 1931 | 1,934,975 | 8.2 |
| Total | | | 23,736,542 | 100.0* |

*Percentage does not total due to rounding.

Sample Design

As explained above, the third group of voters retained for this study came from a sample of previously registered electors who voted at their polling stations on January 23, 2006. The sampling unit was the polling division, and the sample itself was selected from the 58,017 polling divisions across the country.

For practical considerations, the sample was selected in two stages. In the first stage, the federal electoral districts in each province were stratified: those with a large university campus and those without one. This was done to ensure good coverage of youth, since university students were at their school-year residence at the time of this election, and analysis of registration patterns suggested that electoral districts with large universities had higher-than-normal voter registrations. From each group within a province, a simple random sample of electoral districts was selected.

Because the number of electoral districts with large university campuses was quite small in most provinces, these were generally selected in the sample with certainty. However, in Ontario and Quebec, there were simply too many to take them all, so only half were selected in the sample. This oversampling was deemed necessary to ensure that students were included in the sample. Any effects of over-representation were corrected by appropriate weighting.

The first stage of sampling yielded 50 electoral districts. The number of electoral districts selected was determined to ensure adequate coverage at the national level.

The second stage was to identify approximately 20 polling divisions within each of the selected electoral districts. This stage of sampling was carried out using simple random sampling without replacement.

For each selected polling division, we obtained the dates of birth for all electors who were physically struck off the official list of electors.

Example of Estimation Calculations

This example shows how we calculated the turnout estimates for one age group in one province: 18- to 24-year-olds in Newfoundland and Labrador. To get the initial estimates of non-registering voters at ordinary polls, we used this table:

| Stratum | Sampled ED | 1st-stage Weight | 2nd-stage Weight | Vote Counts | Adjusted Vote Counts | Initial Estimate |
|-----------|------------|------------------|-------------------|-------------|----------------------|------------------|
| Non-univ. | 10001 | $6 / 3 = 2$ | $214 / 18 = 11.9$ | 76 | 76.7 | 1,824.3 |
| Non-univ. | 10002 | $6 / 3 = 2$ | $232 / 23 = 10.1$ | 61 | 60.5 | 1,220.2 |
| Non-univ. | 10003 | $6 / 3 = 2$ | $194 / 21 = 9.2$ | 76 | 74.7 | 1,379.5 |
| Univ. | 10006 | $1 / 1 = 1$ | $154 / 21 = 7.3$ | 326 | 334.3 | 2,451.7 |
| Total | | | | 539 | 546.2 | 6,875.7 |

The 1st-stage sampling weights are simply the number of electoral districts in the 1st-stage stratum divided by the number included in the sample. Similarly, the 2nd-stage sampling weights are the number of polling divisions in the selected electoral districts divided by the number of polling divisions included in the sample from that district. The vote counts are the number of electors crossed off the list of electors, after those who voted at advance polls or by special ballot are identified and removed, as well as those who registered to vote on polling day.

We adjusted the vote counts at the polling-division level, because the total overall age groups did not always agree with the known total. Adjusting them so they agree is equivalent to using the raw vote counts to distribute the known totals to the various age groups within the polling division.

We then obtained the initial estimate by multiplying the adjusted vote counts by the 1st- and 2nd-stage sampling weights, and then adding up overall sampled polling divisions. Thus, we estimate that 6,875.7 18- to 24-year-olds voted at ordinary polls without registering.

We can do the same thing for each age group. For Newfoundland and Labrador (N.L.), the total of these estimates across all age groups is 201,676.2. But the official voting results for N.L. indicate that actually 197,008 people voted at ordinary polls without registering. So the estimates are adjusted to agree with the known total. That is,

$$\begin{aligned}\text{adjusted estimate} &= \text{initial estimate} \times \text{known N.L. total} / \text{estimated N.L. total} \\ &= 1,824.3 \times 197,008 / 201,676.2 \\ &= 6,716.5\end{aligned}$$

This estimate is then added to the known totals for advance poll voters, special ballot voters, and registering ordinary poll voters, and divided by the estimate of the electoral population:

| | |
|---|----------|
| Adjusted estimate, ordinary polls without registering | 6,716.5 |
| Known total, advance poll and SVR voters | 1,037.0 |
| Known total, voting registrants | 3,372.0 |
| Total = Final estimate | 11,125.5 |
| Electoral Population | 47,207.0 |
| Estimated Turnout | 23.6% |

The use of appropriate sampling weights in the estimation procedures ensures that no groups of electors are over-represented in the final estimates. For example, in N.L., electors voting at advance polls received a weight of 1, while those who voted at ordinary polls without registering received a weight of about 10 if they were in an electoral district with a large university campus, and a weight of about 20 otherwise.

Margins of Error

At the national level, the sample produced estimates with margins of error that varied from age group to age group, with an average of about $\pm 4.8\%$, 19 times out of 20. In other words, if the same sampling strategy were replicated 20 times, we would expect that, 19 times out of 20 (95% of the time), the estimated turnout rate for each age group would not differ from the true value by more than 4.8%.

At first glance, the national margins of error may seem inconsistent with the large number of electors captured in the sample (over 193,000). From a methodological perspective, the sample unit – or the unit that was randomly selected – is the polling division, not the individual electors. Therefore, the margins of error are calculated in reference to the number of polling divisions in the sample, and not the number of electors.

The following table provides the margins of error for each age group at the national level as well as for each province, territory and aggregated region. Estimated turnout rates provided in this study may vary from the true values by plus or minus their corresponding margins of error (in percentage points).

Due to the sampling procedures, the data do not allow reliable estimates of voter turnout for a geographical territory smaller than the province.

Table 4: Margins of error

| | Youth 18-24 | | Age groups | | | | | | |
|--------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|------|
| | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ |
| Canada | 2.9 | 4.3 | 3.5 | 2.8 | 4.7 | 3.5 | 3.2 | 9.4 | 10.2 |
| N.L. | 1.9 | 3.9 | 3.1 | 2.1 | 2.5 | 2.2 | 3.8 | 6.3 | 6.5 |
| P.E.I. | 4.8 | 7.5 | 6.4 | 4.0 | 14.5 | 4.1 | 3.4 | 8.5 | 31.0 |
| N.S. | 5.7 | 3.5 | 3.6 | 7.1 | 12.2 | 6.6 | 4.1 | 24.9 | 25.8 |
| N.B. | 2.9 | 4.0 | 3.0 | 2.3 | 3.6 | 3.1 | 2.9 | 3.4 | 8.3 |
| Que. | 8.4 | 9.4 | 6.6 | 8.0 | 7.2 | 12.5 | 4.8 | 18.9 | 18.8 |
| Ont. | 3.3 | 8.3 | 6.7 | 6.0 | 11.8 | 3.7 | 7.4 | 18.6 | 17.3 |
| Man. | 1.3 | 2.5 | 2.0 | 11.3 | 7.2 | 8.0 | 4.2 | 14.0 | 22.5 |
| Sask. | 1.4 | 3.3 | 2.8 | 4.2 | 5.0 | 6.8 | 5.3 | 12.4 | 17.1 |
| Alta. | 9.7 | 6.3 | 6.2 | 4.0 | 8.3 | 3.9 | 9.9 | 12.3 | 28.8 |
| B.C. | 10.3 | 15.1 | 14.0 | 7.2 | 12.1 | 10.2 | 6.5 | 27.0 | 40.2 |
| Y.T. | 4.8 | 2.6 | 2.4 | 5.7 | 4.3 | 6.0 | 5.0 | 9.0 | 24.3 |
| N.W.T. | 4.2 | 3.4 | 2.6 | 3.0 | 4.7 | 5.4 | 7.4 | 14.4 | 12.2 |
| Nun. | 0.5 | 3.5 | 2.8 | 1.4 | 1.2 | 4.6 | 2.2 | 7.3 | 12.1 |

Note: Margins of error vary considerably because polls were selected randomly, with no control for age groups.

Appendix 2: Significant Differences Between Age Groups (2006 General Election)

The following tables show differences between age groups that are significant at a 95% confidence level. Non-significant differences have been replaced by a dash (–). The left-hand column shows age brackets.

| | | Youth 18–24 | | Age groups | | | | | | | |
|--------|---------------------------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | | First-time eligible | Previously eligible | 18–24 | 25–34 | 35–44 | 45–54 | 55–64 | 65–74 | 75+ | All |
| Canada | Youth first-time eligible | | – | – | -7.6 | -19.4 | -27.8 | -33.1 | -35.3 | -19.4 | -20.6 |
| | Youth previously eligible | – | | – | – | -17.4 | -25.8 | -31.1 | -33.3 | -17.4 | -18.6 |
| | 18–24 | – | – | | – | -17.8 | -26.2 | -31.6 | -33.7 | -17.8 | -19.0 |
| | 25–34 | – | – | – | | -11.9 | -20.2 | -25.6 | -27.7 | – | -13.0 |
| | 35–44 | – | – | – | – | | – | -13.7 | -15.9 | – | – |
| | 45–54 | – | – | – | – | – | | – | – | – | 7.2 |
| | 55–64 | – | – | – | – | – | – | | – | 13.7 | 12.6 |
| | 65–74 | – | – | – | – | – | – | – | | – | 14.7 |
| | 75+ | – | – | – | – | – | – | – | – | | – |
| | All | – | – | – | – | – | – | – | – | – | |
| N.L. | Youth first-time eligible | | – | – | -8.7 | -30.6 | -41.4 | -48.0 | -52.4 | -31.9 | -30.9 |
| | Youth previously eligible | – | | – | -9.9 | -31.8 | -42.6 | -49.2 | -53.6 | -33.0 | -32.1 |
| | 18–24 | – | – | | -9.6 | -31.6 | -42.3 | -48.9 | -53.4 | -32.8 | -31.9 |
| | 25–34 | – | – | – | | -21.9 | -32.7 | -39.3 | -43.8 | -23.2 | -22.2 |
| | 35–44 | – | – | – | – | | -10.7 | -17.4 | -21.8 | – | – |
| | 45–54 | – | – | – | – | – | | -6.6 | -11.1 | 9.5 | 10.4 |
| | 55–64 | – | – | – | – | – | – | | – | 16.1 | 17.0 |
| | 65–74 | – | – | – | – | – | – | – | | 20.6 | 21.5 |
| | 75+ | – | – | – | – | – | – | – | – | | – |
| | All | – | – | – | – | – | – | – | – | – | |
| P.E.I. | Youth first-time eligible | | – | – | – | -20.7 | -29.3 | -28.9 | -30.7 | – | -20.7 |
| | Youth previously eligible | – | | – | – | -22.3 | -31.0 | -30.5 | -32.3 | – | -22.4 |
| | 18–24 | – | – | | – | -22.0 | -30.6 | -30.2 | -32.0 | – | -22.0 |
| | 25–34 | – | – | – | | – | -23.8 | -23.3 | -25.1 | – | -15.2 |
| | 35–44 | – | – | – | – | | – | – | – | – | – |
| | 45–54 | – | – | – | – | – | | – | – | – | 8.6 |
| | 55–64 | – | – | – | – | – | – | | – | – | 8.2 |
| | 65–74 | – | – | – | – | – | – | – | | – | 10.0 |
| | 75+ | – | – | – | – | – | – | – | – | | – |
| | All | – | – | – | – | – | – | – | – | – | |

Note: Only significant differences at a 95% confidence level are shown in this table.

| | | Youth 18-24 | | Age groups | | | | | | | |
|------|---------------------------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | All |
| N.S. | Youth first-time eligible | | - | - | - | - | -27.3 | -29.2 | - | - | -17.0 |
| | Youth previously eligible | - | | - | - | -17.4 | -27.5 | -29.4 | -29.3 | - | -17.1 |
| | 18-24 | - | - | | - | -17.3 | -27.4 | -29.4 | -29.3 | - | -17.1 |
| | 25-34 | - | - | - | | - | -29.2 | -31.2 | - | - | -18.9 |
| | 35-44 | - | - | - | - | | - | - | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | 10.4 |
| | 55-64 | - | - | - | - | - | - | | - | - | 12.3 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| N.B. | Youth first-time eligible | | - | - | -7.9 | -23.4 | -29.2 | -37.7 | -39.8 | -30.7 | -24.2 |
| | Youth previously eligible | - | | - | -6.9 | -22.4 | -28.2 | -36.6 | -38.7 | -29.7 | -23.2 |
| | 18-24 | - | - | | -7.1 | -22.6 | -28.4 | -36.9 | -39.0 | -29.9 | -23.4 |
| | 25-34 | - | - | - | | -15.5 | -21.3 | -29.8 | -31.9 | -22.8 | -16.3 |
| | 35-44 | - | - | - | - | | - | -14.2 | -16.3 | - | - |
| | 45-54 | - | - | - | - | - | | -8.4 | -10.5 | - | 5.0 |
| | 55-64 | - | - | - | - | - | - | | - | - | 13.4 |
| | 65-74 | - | - | - | - | - | - | - | | - | 15.5 |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| Que. | Youth first-time eligible | | - | - | - | - | - | -27.1 | -32.2 | - | -16.9 |
| | Youth previously eligible | - | | - | - | - | - | -23.4 | -28.5 | - | -13.1 |
| | 18-24 | - | - | | - | - | - | -24.2 | -29.3 | - | -14.0 |
| | 25-34 | - | - | - | | - | - | -17.4 | - | - | - |
| | 35-44 | - | - | - | - | | - | -12.2 | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | - |
| | 55-64 | - | - | - | - | - | - | | - | - | 10.2 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |

Note: Only significant differences at a 95% confidence level are shown in this table.

| | | Youth 18-24 | | Age groups | | | | | | | |
|-------|---------------------------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | All |
| Ont. | Youth first-time eligible | | - | - | -10.0 | -20.7 | -26.7 | -32.6 | -29.0 | - | -20.0 |
| | Youth previously eligible | - | | - | - | - | -22.5 | -28.4 | - | - | -15.7 |
| | 18-24 | - | - | | - | - | -23.4 | -29.3 | -25.7 | - | -16.6 |
| | 25-34 | - | - | - | | - | -16.7 | -22.6 | - | - | -10.0 |
| | 35-44 | - | - | - | - | | - | - | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | 6.8 |
| | 55-64 | - | - | - | - | - | - | | - | - | 12.7 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| Man. | Youth first-time eligible | | - | - | - | -25.4 | -35.4 | -39.1 | -42.4 | -35.8 | -26.8 |
| | Youth previously eligible | - | | - | - | -25.7 | -35.6 | -39.4 | -42.6 | -36.0 | -27.0 |
| | 18-24 | - | - | | - | -25.6 | -35.5 | -39.3 | -42.6 | -36.0 | -27.0 |
| | 25-34 | - | - | - | | - | -24.1 | -27.9 | -31.2 | - | -15.6 |
| | 35-44 | - | - | - | - | | - | -13.7 | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | 8.6 |
| | 55-64 | - | - | - | - | - | - | | - | - | 12.4 |
| | 65-74 | - | - | - | - | - | - | - | | - | 15.6 |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| Sask. | Youth first-time eligible | | - | - | -8.9 | -25.6 | -39.2 | -54.5 | -64.2 | -57.2 | -32.6 |
| | Youth previously eligible | - | | - | -12.5 | -29.2 | -42.9 | -58.1 | -67.8 | -60.8 | -36.2 |
| | 18-24 | - | - | | -11.6 | -28.4 | -42.0 | -57.3 | -67.0 | -60.0 | -35.4 |
| | 25-34 | - | - | - | | -16.8 | -30.4 | -45.6 | -55.3 | -48.4 | -23.7 |
| | 35-44 | - | - | - | - | | -13.6 | -28.9 | -38.5 | -31.6 | -7.0 |
| | 45-54 | - | - | - | - | - | | -15.2 | -24.9 | - | - |
| | 55-64 | - | - | - | - | - | - | | - | - | 21.9 |
| | 65-74 | - | - | - | - | - | - | - | | - | 31.6 |
| | 75+ | - | - | - | - | - | - | - | - | | 24.6 |
| | All | - | - | - | - | - | - | - | - | - | |

Note: Only significant differences at a 95% confidence level are shown in this table.

| | | Youth 18-24 | | Age groups | | | | | | | |
|-------|---------------------------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | All |
| Alta. | Youth first-time eligible | | - | - | - | -18.9 | -34.2 | -33.1 | -37.7 | - | -20.0 |
| | Youth previously eligible | - | | - | - | -16.7 | -32.0 | -30.9 | -35.5 | - | -17.8 |
| | 18-24 | - | - | | - | -17.2 | -32.5 | -31.4 | -36.0 | - | -18.3 |
| | 25-34 | - | - | - | | -19.3 | -34.6 | -33.5 | -38.1 | - | -20.4 |
| | 35-44 | - | - | - | - | | -15.3 | - | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | 14.3 |
| | 55-64 | - | - | - | - | - | - | | - | - | 13.1 |
| | 65-74 | - | - | - | - | - | - | - | | - | 17.7 |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| B.C. | Youth first-time eligible | | - | - | - | - | -31.9 | -35.7 | -44.7 | - | -22.2 |
| | Youth previously eligible | - | | - | - | - | -35.9 | -39.7 | -48.7 | - | -26.1 |
| | 18-24 | - | - | | - | - | -35.0 | -38.8 | -47.8 | - | -25.2 |
| | 25-34 | - | - | - | | - | -29.9 | -33.7 | -42.7 | - | -20.1 |
| | 35-44 | - | - | - | - | | - | - | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | - |
| | 55-64 | - | - | - | - | - | - | | - | - | 13.6 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| Y.T. | Youth first-time eligible | | - | - | -14.8 | -24.0 | -45.5 | -39.2 | -35.8 | -45.0 | -28.2 |
| | Youth previously eligible | - | | - | -17.2 | -26.3 | -47.9 | -41.5 | -38.2 | -47.4 | -30.5 |
| | 18-24 | - | - | | -16.7 | -25.8 | -47.3 | -41.0 | -37.7 | -46.9 | -30.0 |
| | 25-34 | - | - | - | | - | -30.7 | -24.3 | -21.0 | -30.2 | -13.3 |
| | 35-44 | - | - | - | - | | -21.5 | -15.2 | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | - | 17.3 |
| | 55-64 | - | - | - | - | - | - | | - | - | 11.0 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |

Note: Only significant differences at a 95% confidence level are shown in this table.

| | | Youth 18-24 | | Age groups | | | | | | | |
|--------|---------------------------|---------------------|---------------------|------------|-------|-------|-------|-------|-------|-------|-------|
| | | First-time eligible | Previously eligible | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+ | All |
| N.W.T. | Youth first-time eligible | | - | - | -11.5 | -25.3 | -42.3 | -37.4 | -27.8 | -19.0 | -23.7 |
| | Youth previously eligible | - | | - | -8.5 | -22.3 | -39.3 | -34.4 | -24.8 | -16.0 | -20.7 |
| | 18-24 | - | - | | -9.2 | -23.0 | -40.0 | -35.1 | -25.5 | -16.7 | -21.4 |
| | 25-34 | - | - | - | | -13.8 | -30.8 | -25.8 | - | - | -12.1 |
| | 35-44 | - | - | - | - | | -17.0 | - | - | - | - |
| | 45-54 | - | - | - | - | - | | - | - | 23.3 | 18.6 |
| | 55-64 | - | - | - | - | - | - | | - | - | 13.7 |
| | 65-74 | - | - | - | - | - | - | - | | - | - |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |
| Nun. | Youth first-time eligible | | -13.4 | -10.5 | -23.7 | -43.8 | -34.3 | -48.6 | -47.0 | -37.2 | -30.6 |
| | Youth previously eligible | - | | - | -10.3 | -30.3 | -20.8 | -35.2 | -33.6 | -23.8 | -17.2 |
| | 18-24 | - | - | | -13.2 | -33.2 | -23.8 | -38.1 | -36.5 | -26.7 | -20.1 |
| | 25-34 | - | - | - | | -20.1 | -10.6 | -24.9 | -23.3 | -13.5 | -6.9 |
| | 35-44 | - | - | - | - | | 9.5 | -4.8 | - | - | 13.1 |
| | 45-54 | - | - | - | - | - | | -14.3 | -12.7 | -2.9 | - |
| | 55-64 | - | - | - | - | - | - | | - | - | 18.0 |
| | 65-74 | - | - | - | - | - | - | - | | - | 16.4 |
| | 75+ | - | - | - | - | - | - | - | - | | - |
| | All | - | - | - | - | - | - | - | - | - | |

Note: Only significant differences at a 95% confidence level are shown in this table.

Appendix 3: Estimates of Participation Rate by Age Group (2004 and 2006 General Elections – Canada, Provinces and Territories)

| | Age groups | Participation (number of voters/number of electors in the population, %) | | Difference |
|--------|---------------------------|--|------|------------|
| | | 2006 | 2004 | |
| Canada | Youth first-time eligible | 42.2 | 39.6 | 2.6 |
| | Youth previously eligible | 44.2 | 34.3 | 9.9* |
| | 18–24 | 43.8 | 37.0 | 6.8* |
| | 25–34 | 49.8 | 44.0 | 5.7* |
| | 35–44 | 61.6 | 54.5 | 7.1* |
| | 45–54 | 70.0 | 66.0 | 4.0 |
| | 55–64 | 75.4 | 72.9 | 2.4 |
| | 65–74 | 77.5 | 75.5 | 2.0 |
| | 75+ | 61.6 | 63.9 | -2.3 |
| | All | 62.8 | 58.5 | 4.4* |
| N.L. | Youth first-time eligible | 24.5 | 23.3 | 1.2 |
| | Youth previously eligible | 23.3 | 22.7 | 0.6 |
| | 18–24 | 23.6 | 23.0 | 0.5 |
| | 25–34 | 33.2 | 34.5 | -1.4 |
| | 35–44 | 55.1 | 45.4 | 9.7* |
| | 45–54 | 65.9 | 55.5 | 10.4* |
| | 55–64 | 72.5 | 64.6 | 7.9* |
| | 65–74 | 76.9 | 61.9 | 15.1* |
| | 75+ | 56.3 | 54.7 | 1.7 |
| | All | 55.4 | 48.2 | 7.2* |
| P.E.I. | Youth first-time eligible | 53.3 | 51.3 | 2.0 |
| | Youth previously eligible | 51.6 | 43.0 | 8.6 |
| | 18–24 | 52.0 | 47.4 | 4.6 |
| | 25–34 | 58.8 | 58.5 | 0.3 |
| | 35–44 | 73.9 | 72.0 | 1.9 |
| | 45–54 | 82.6 | 79.0 | 3.6 |
| | 55–64 | 82.1 | 87.5 | -5.3 |
| | 65–74 | 83.9 | 83.9 | 0.0 |
| | 75+ | 78.4 | 65.4 | 13.0 |
| | All | 74.0 | 73.1 | 0.9* |
| N.S. | Youth first-time eligible | 48.3 | 37.8 | 10.5* |
| | Youth previously eligible | 48.1 | 39.9 | 8.2 |
| | 18–24 | 48.1 | 38.8 | 9.3 |
| | 25–34 | 46.3 | 46.4 | -0.1 |
| | 35–44 | 65.4 | 57.0 | 8.4 |
| | 45–54 | 75.6 | 72.9 | 2.6 |
| | 55–64 | 77.5 | 70.5 | 7.0 |
| | 65–74 | 77.4 | 64.2 | 13.2 |
| | 75+ | 57.1 | 55.1 | 2.0 |
| | All | 65.2 | 59.4 | 5.8* |

* Significant at a 95% confidence level.

| | Age groups | Participation (number of voters/number of electors in the population, %) | | Difference |
|------|---------------------------|--|------|------------|
| | | 2006 | 2004 | |
| N.B. | Youth first-time eligible | 44.7 | 40.2 | 4.6* |
| | Youth previously eligible | 45.8 | 29.6 | 16.2* |
| | 18-24 | 45.5 | 35.0 | 10.5* |
| | 25-34 | 52.6 | 46.9 | 5.8 |
| | 35-44 | 68.2 | 62.8 | 5.4* |
| | 45-54 | 74.0 | 68.9 | 5.0* |
| | 55-64 | 82.4 | 80.1 | 2.3 |
| | 65-74 | 84.5 | 83.8 | 0.7 |
| | 75+ | 75.5 | 62.6 | 12.9* |
| | All | 69.0 | 63.1 | 5.8* |
| Que. | Youth first-time eligible | 47.3 | 48.2 | -0.9 |
| | Youth previously eligible | 51.0 | 39.7 | 11.3 |
| | 18-24 | 50.2 | 43.8 | 6.4 |
| | 25-34 | 57.0 | 46.3 | 10.7* |
| | 35-44 | 62.1 | 54.1 | 8.1 |
| | 45-54 | 67.2 | 65.0 | 2.2 |
| | 55-64 | 74.4 | 73.5 | 0.9 |
| | 65-74 | 79.5 | 79.3 | 0.2 |
| | 75+ | 55.4 | 70.4 | -14.9 |
| | All | 64.1 | 60.6 | 3.5* |
| Ont. | Youth first-time eligible | 43.7 | 41.8 | 1.9 |
| | Youth previously eligible | 47.9 | 35.3 | 12.6* |
| | 18-24 | 47.0 | 38.7 | 8.4* |
| | 25-34 | 53.7 | 44.5 | 9.1* |
| | 35-44 | 64.4 | 57.3 | 7.1 |
| | 45-54 | 70.4 | 68.7 | 1.7 |
| | 55-64 | 76.3 | 72.8 | 3.5 |
| | 65-74 | 72.7 | 72.9 | -0.2 |
| | 75+ | 56.8 | 56.1 | 0.7 |
| | All | 63.7 | 58.6 | 5.0* |
| Man. | Youth first-time eligible | 33.6 | 28.3 | 5.3* |
| | Youth previously eligible | 33.4 | 28.9 | 4.5 |
| | 18-24 | 33.4 | 28.6 | 4.9* |
| | 25-34 | 44.8 | 37.7 | 7.1 |
| | 35-44 | 59.0 | 51.1 | 7.9 |
| | 45-54 | 69.0 | 61.5 | 7.5 |
| | 55-64 | 72.7 | 71.0 | 1.7 |
| | 65-74 | 76.0 | 71.0 | 5.0 |
| | 75+ | 69.4 | 67.5 | 1.9 |
| | All | 60.4 | 55.8 | 4.6* |

* Significant at a 95% confidence level.

| | Age groups | Participation (number of voters/number of electors in the population, %) | | Difference |
|-------|---------------------------|--|------|------------|
| | | 2006 | 2004 | |
| Sask. | Youth first-time eligible | 30.2 | 29.0 | 1.2 |
| | Youth previously eligible | 26.6 | 26.6 | 0.0 |
| | 18-24 | 27.4 | 27.9 | -0.5 |
| | 25-34 | 39.1 | 35.0 | 4.0 |
| | 35-44 | 55.8 | 49.4 | 6.4 |
| | 45-54 | 69.5 | 62.3 | 7.2 |
| | 55-64 | 84.7 | 75.8 | 8.9 |
| | 65-74 | 94.4 | 81.2 | 13.2 |
| | 75+ | 87.4 | 86.4 | 1.0 |
| | All | 62.8 | 58.0 | 4.8* |
| Alta. | Youth first-time eligible | 40.5 | 35.3 | 5.2 |
| | Youth previously eligible | 42.7 | 28.7 | 14.0* |
| | 18-24 | 42.2 | 32.1 | 10.1* |
| | 25-34 | 40.1 | 45.2 | -5.1 |
| | 35-44 | 59.4 | 53.7 | 5.7 |
| | 45-54 | 74.7 | 62.6 | 12.1* |
| | 55-64 | 73.6 | 67.9 | 5.7 |
| | 65-74 | 78.2 | 75.0 | 3.2 |
| | 75+ | 70.0 | 59.1 | 10.9 |
| | All | 60.5 | 55.0 | 5.5* |
| B.C. | Youth first-time eligible | 37.1 | 31.9 | 5.3 |
| | Youth previously eligible | 33.2 | 31.2 | 2.0 |
| | 18-24 | 34.1 | 31.5 | 2.5 |
| | 25-34 | 39.2 | 41.0 | -1.8 |
| | 35-44 | 54.4 | 48.4 | 6.0 |
| | 45-54 | 69.1 | 63.9 | 5.1 |
| | 55-64 | 72.9 | 75.5 | -2.6 |
| | 65-74 | 81.9 | 78.9 | 2.9 |
| | 75+ | 69.7 | 71.9 | -2.2 |
| | All | 59.3 | 57.2 | 2.1* |
| Y.T. | Youth first-time eligible | 33.3 | 25.6 | 7.7* |
| | Youth previously eligible | 30.9 | 29.9 | 1.0 |
| | 18-24 | 31.4 | 27.5 | 3.9* |
| | 25-34 | 48.1 | 43.9 | 4.2 |
| | 35-44 | 57.2 | 51.2 | 6.0* |
| | 45-54 | 78.8 | 67.2 | 11.5* |
| | 55-64 | 72.4 | 69.4 | 3.0 |
| | 65-74 | 69.1 | 78.9 | -9.8 |
| | 75+ | 78.3 | 75.6 | 2.7 |
| | All | 61.4 | 55.5 | 5.9* |

* Significant at a 95% confidence level.

| | Age groups | Participation (number of voters/number of electors in the population, %) | | Difference |
|----------|---------------------------|--|------|------------|
| | | 2006 | 2004 | |
| N.W.T. | Youth first-time eligible | 29.4 | 29.5 | 0.0 |
| | Youth previously eligible | 32.4 | 27.2 | 5.3* |
| | 18-24 | 31.7 | 28.3 | 3.4 |
| | 25-34 | 41.0 | 36.8 | 4.2 |
| | 35-44 | 54.7 | 47.0 | 7.7* |
| | 45-54 | 71.7 | 62.9 | 8.9* |
| | 55-64 | 66.8 | 51.1 | 15.7* |
| | 65-74 | 57.2 | 36.0 | 21.2* |
| | 75+ | 48.5 | 28.1 | 20.4* |
| | All | 53.1 | 45.8 | 7.3* |
| Nun. | Youth first-time eligible | 22.1 | 26.3 | -4.2* |
| | Youth previously eligible | 35.5 | 27.9 | 7.6* |
| | 18-24 | 32.6 | 27.0 | 5.6 |
| | 25-34 | 45.8 | 41.2 | 4.5* |
| | 35-44 | 65.8 | 46.4 | 19.4* |
| | 45-54 | 56.4 | 47.7 | 8.6* |
| | 55-64 | 70.7 | 61.5 | 9.2* |
| | 65-74 | 69.1 | 72.6 | -3.5 |
| | 75+ | 59.3 | 47.4 | 11.9 |
| | All | 52.7 | 43.6 | 9.1* |
| Atlantic | Youth first-time eligible | 42.4 | 35.9 | 6.5* |
| | Youth previously eligible | 41.9 | 32.9 | 9.1* |
| | 18-24 | 42.0 | 34.4 | 7.6* |
| | 25-34 | 46.3 | 44.7 | 1.7 |
| | 35-44 | 64.4 | 57.1 | 7.3* |
| | 45-54 | 73.2 | 68.0 | 5.2 |
| | 55-64 | 78.2 | 73.1 | 5.1 |
| | 65-74 | 79.9 | 71.0 | 8.9 |
| | 75+ | 64.4 | 58.1 | 6.2 |
| | All | 64.7 | 58.9 | 5.9* |
| Prairies | Youth first-time eligible | 37.2 | 32.6 | 4.6 |
| | Youth previously eligible | 37.7 | 28.4 | 9.3* |
| | 18-24 | 37.6 | 30.6 | 7.0* |
| | 25-34 | 40.9 | 41.9 | -1.1 |
| | 35-44 | 58.7 | 52.4 | 6.3 |
| | 45-54 | 72.6 | 62.3 | 10.2* |
| | 55-64 | 75.5 | 70.1 | 5.3 |
| | 65-74 | 81.2 | 75.4 | 5.7 |
| | 75+ | 74.2 | 68.3 | 5.9 |
| | All | 60.9 | 55.7 | 5.2* |

* Significant at a 95% confidence level.

| | Age groups | Participation (number of voters/number of electors in the population, %) | | Difference |
|-------------|---------------------------|--|------|------------|
| | | 2006 | 2004 | |
| Territories | Youth first-time eligible | 28.2 | 27.3 | 0.9 |
| | Youth previously eligible | 33.0 | 28.1 | 4.9* |
| | 18-24 | 31.9 | 27.7 | 4.3* |
| | 25-34 | 44.1 | 39.8 | 4.3* |
| | 35-44 | 58.0 | 48.1 | 9.9* |
| | 45-54 | 71.1 | 61.5 | 9.7* |
| | 55-64 | 69.8 | 60.7 | 9.2* |
| | 65-74 | 64.5 | 62.0 | 2.5 |
| | 75+ | 63.1 | 51.5 | 11.7 |
| | All | 55.7 | 48.4 | 7.3* |

* Significant at a 95% confidence level.

Notes

¹ André Blais, Elisabeth Gidengil, Richard Nadeau and Neil Nevitte, *Anatomy of a Liberal Victory: Making Sense of the Vote in the 2000 Canadian Election* (Peterborough, Ontario: Broadview Press, 2002).

² Jon H. Pammett and Lawrence LeDuc, "Explaining the Turnout Decline in Canadian Federal Elections: A New Survey of Non-voters," available on the Elections Canada Web site (www.elections.ca) under Electoral Law, Policy and Research, Research Documents.

³ The Pammett/LeDuc study was designed to overcome this problem by specifically sampling a large number of non-voters.

⁴ Elections Canada, "Estimation of Voter Turnout by Age Group at the 38th Federal General Election (June 28, 2004)," available on the Elections Canada Web site (www.elections.ca) under Electoral Law, Policy and Research, Research Documents.

⁵ This subgroup may or may not have voted before the 2006 general election, even though they were eligible electors. In this report, we refer to them as "Previously eligible" in contrast to "First-time voters."

⁶ Based on the number of polling divisions retained for the sample.

⁷ The 39th general election was held on January 23, a time of year when weather conditions are often harsh.

⁸ The Special Voting Rules (Part 11 of the *Canada Elections Act*) afford the opportunity to vote by mail or at the office of a returning officer to electors who cannot or do not wish to go to the polls. Instead of a regular ballot showing a list of candidates with corresponding check marks, this mechanism features a special ballot with a blank line to write in the name of a candidate. Special ballots cast from within an elector's electoral district are counted as "local," and those cast from elsewhere as "national." During the 2006 election, some 112,000 special ballots were received by Elections Canada, compared with 60,566 in 2004, showing a significant progression of this flexible voting method.

⁹ Special ballots are separated into two categories in accordance with how the *Canada Elections Act* governs the administration of these ballots. The "SVR National" involves special ballots sent *from outside* the voter's electoral district, i.e. from another electoral district or from outside Canada. The "SVR Local" represents special ballots sent *from within* a given electoral district.

¹⁰ In order to make comparisons with the 38th general election, we re-calculated the estimates from previous studies using standard age groups.

¹¹ Because the 2006 general election occurred during the school year, some out-of-province students may have chosen to vote in the electoral district where they were studying. Therefore, comparison with the 2004 general election may be partially affected by the higher participation of rate out-of-province students in 2006.

¹² In this report, this subgroup is referred to as "youth previously eligible."

